

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (currently amended) A wellbore apparatus comprising:
 - a) a first flow joint in a wellbore, the first flow joint comprising at least one three-dimensional surface defining a first fluid flow path through the wellbore, at least one section of the first flow joint surface being permeable and at least one section of the first flow joint surface being impermeable;
 - b) a second flow joint in thea wellbore, the second flow joint comprising at least one three-dimensional surface defining a second fluid flow path through the wellbore, at least one section of the second flow joint surface being permeable and at least one section of the second flow joint surface being impermeable;
 - c) at least one wall inside the first flow joint or the second flow joint to form at least a third fluid flow path; and
 - ed) wherein at least one permeable section of the first flow joint is connected to at least one permeable section of the second flow joint thereby providing at least one fluid flow path between the first flow joint and the second flow joint.
2. (original) The apparatus of claim 1 wherein the first and second flow joints are selectively perforated basepipes.
3. (original) The apparatus of claim 1 wherein the first flow joint is adjacent to the second flow joint in the wellbore.
4. (original) The apparatus of claim 1 wherein the first flow joint is concentric to the second flow joint in the wellbore.

5. (original) The apparatus of claim 1 wherein at least one flow joint comprises joints of pipe.
6. (original) The apparatus of claim 1 wherein the first flow joint is eccentric to the second flow joint in the wellbore.
7. (original) The apparatus of claim 5 wherein the joints of pipe are connected using flexible joints.
8. (original) The apparatus of claim 1 wherein the three-dimensional surface of the first and second flow joints are cylindrical.
9. (original) The apparatus of claim 1 wherein at least one wellbore annuli is utilized as a flow joint.
10. (original) The apparatus of claim 1 wherein at least one flow joint is a sand screen.
11. (currently amended) The apparatus of claim 10 wherein the sand screen is a wire-wrapped screen and the wires of the wire-wrapped screen are wrapped at varying pitches thereby creating varying levels of permeable sections and impermeable sections.
12. (original) The apparatus of claim 1 further comprising at least one shunt tube in at least one flow joint.
13. (original) The apparatus of claim 1 wherein the apparatus is used for producing hydrocarbons.
14. (original) The apparatus of claim 1 wherein the apparatus is used for gravel packing a well.
15. (currently amended) The apparatus of claim 1 wherein at least one impermeable section of the first flow joint or the second flow joint and at least one permeable section of the first flow joint or the second flow joint are each at least 7.5 centimeters long.
16. (currently amended) The apparatus of claim 1 wherein at least one impermeable section of the first flow joint or the second flow joint and at least one permeable section of the first flow joint or the second flow joint are each at least 15 centimeters long.

17. (currently amended) The apparatus of claim 1 wherein at least one impermeable section of the first flow joint ~~at least one flow joint~~ is adjacent to at least one permeable section of a third ~~adjacent~~ flow joint.

18. (original) The apparatus of claim 1 wherein at any cross-section location of the apparatus, at least one wall of at least one flow joint is impermeable.

19. (original) The apparatus of claim 1 wherein at any cross-section location at least one wall of at least one flow joint is impermeable and at least one wall of at least one flow joint is permeable.

20. (currently amended) A wellbore apparatus comprising;

a) a first selectively perforated basepipe inside ~~the~~ wellbore defining a first fluid flow path through the wellbore, with at least one section of the first selectively perforated basepipe being impermeable and at least one section of the first perforated basepipe being permeable;

b) a second selectively perforated basepipe inside the wellbore defining a second fluid flow path through the wellbore, with at least one section of the second selectively perforated basepipe being impermeable and at least one section of the second perforated basepipe being permeable;

c) at least one wall disposed inside and coupled to the first selectively perforated basepipe or the second selectively perforated basepipe to provide at least one additional fluid flow path; and

ed) wherein at least one permeable section of the first selectively perforated basepipe and at least one permeable section of the second selectively perforated basepipe ~~basepipes~~ are connected to provide at least one flow path between the first selectively perforated basepipe and the second selectively perforated basepipe.

21. (original) The apparatus of claim 20 wherein the basepipes are concentric.

22. (original) The apparatus of claim 20 wherein the basepipes are eccentric.

23. (original) The apparatus of claim 20 wherein the basepipes are adjacent.

24. (currently amended) The apparatus of claim ~~20-21~~ wherein the first selectively perforated basepipe at least one concentric basepipe is larger than the second selectively perforated basepipe at least one concentric basepipe and further comprising the at least one additional wall is coupled between the first selectively perforated basepipe and the second selectively perforated basepipe inside the larger basepipe to provide at least one additional flow path inside the first selectively perforated basepipe outer basepipe.

25. (currently amended) The apparatus of claim ~~20-22~~ wherein the first selectively perforated basepipe is larger than the second selectively perforated basepipe and the at least one wall is coupled between the first selectively perforated basepipe and the second selectively perforated basepipe to provide at least one additional flow path inside the first selectively perforated basepipe at least one eccentric basepipe is larger than at least one eccentric basepipe and further comprising at least one additional wall inside the larger basepipe to provide at least one additional flow path inside the outer basepipe.

26. (currently amended) The apparatus of claim 20 wherein the perforations of the first selectively perforated basepipe are chosen based on the relative amount of fluids that will flow through the at least one permeable section.

27. (original) The apparatus of claim 20 wherein the wellbore annulus is utilized as an additional flow joint.

28. (currently amended) The apparatus of claim 20 further comprising at least one shunt tube in the first selectively perforated basepipe or the second selectively perforated basepipe at least one flow joint.

29. (original) The apparatus of claim 20 wherein at least three flow paths are available through the wellbore.

30. (currently amended) The apparatus of claim 23 wherein the first selectively perforated basepipe and the second selectively perforated basepipe adjacent joints of pipe are connected with flexible tubes.

31. (currently amended) The apparatus of claim 20 wherein at least one impermeable section of the first selectively perforated basepipe or the second selectively perforated basepipe and at least one permeable section of the first selectively perforated basepipe or the second selectively perforated basepipe are each at least 7.5 centimeters long.

32. (currently amended) The apparatus of claim 20 wherein at least one impermeable section of the first selectively perforated basepipe or the second selectively perforated basepipe and at least one permeable section of the first selectively perforated basepipe or the second selectively perforated basepipe are each at least 15 centimeters long.

33. (currently amended) The apparatus of claim 20 wherein at least one impermeable section of the first selectively perforated basepipe or the second selectively perforated basepipe ~~section of at least one flow joint~~ is adjacent to at least one permeable section of a third n-adjacent selectively perforated basepipe ~~flow joint~~.

34. (currently amended) The apparatus of claim 20 wherein at any cross-section location of the apparatus, at least one wall of ~~at least one~~ the first selectively perforated basepipe or the second selectively perforated basepipe ~~flow joint~~ is impermeable.

35. (currently amended) The apparatus of claim 20 wherein at any cross-section location at least one wall of ~~at least one~~ the first selectively perforated basepipe or the second selectively perforated basepipe ~~flow joint~~ is impermeable and at least one wall of the other one of the first selectively perforated basepipe and the second selectively perforated basepipe ~~at least one flow joint~~ is permeable.

36. (currently amended) A method for completing a wellbore comprising:

a) providing a wellbore apparatus for producing hydrocarbons comprising a first flow joint in a wellbore, the first flow joint comprising at least one three-dimensional surface defining a first fluid flow path through the wellbore with at least one section of the first flow joint surface being permeable and at least one section of the first flow joint surface being impermeable, a second flow joint in a wellbore, the second flow joint comprising at least one three-dimensional surface defining a second fluid flow path through the wellbore with at least one section of the first second flow joint surface being permeable and at least one section of the

first second flow joint surface being impermeable, at least one wall disposed in the first flow joint or the second flow joint to form at least a third fluid flow path, wherein at least one permeable section of the first flow joint is connected to at least one permeable section of the second flow joint thereby providing at least one fluid flow path between the first flow joint and the second flow joint;

b) installing the wellbore apparatus in the wellbore .

37. (currently amended) The method of claim 36 wherein installing the wellbore apparatus provides at least two separate flow paths in the wellbore with at least one connection permitting fluid flow between the first flow path and the second flow path~~flowpaths~~.

38. (currently amended) The ~~method apparatus~~ of claim 36 wherein the apparatus is used for producing hydrocarbons.

39. (currently amended) The ~~method apparatus~~ of claim 36 wherein the apparatus is used for gravel packing a well.

40. (original) The method of claim 36 further comprising producing hydrocarbons from the wellbore.

41. (currently amended) The method of claim 40 further comprising producing hydrocarbons from the wellbore apparatus after the first flow joint, second flow joint or third flow joint has been mechanically damaged.~~Hydrocarbons that are produced according to claim 40.~~

42. (currently amended) The method of claim 36 further comprising disposing at least one shunt tube in at least one of the first flow joint and the second flow joint, and gravel packing the wellbore using the shunt tube in the first flow joint or the second flow joint~~flow joint~~.

43. (currently amended) The method of claim 36 wherein the first flow joint or the second flow joint is a sand screen; and further comprising installing a complete gravel pack during gravel packing operations after the sand screen has been mechanically damaged.

44. (currently amended) A method of flowing fluids in a wellbore comprising;

a) providing a wellbore with an apparatus comprising a first flow joint in a wellbore, the first flow joint comprising at least one three-dimensional surface defining a first fluid flow path through the wellbore with at least one section of the first flow joint surface being permeable and at least one section of the first flow joint surface being impermeable, a second flow joint in a wellbore, the second flow joint comprising at least one three-dimensional surface defining a second fluid flow path through the wellbore with at least one section of the second flow joint surface being permeable and at least one section of the second flow joint surface being impermeable, wherein at least one permeable section of the first flow joint is connected to at least one permeable section of the second flow joint thereby providing at least one fluid flow path between the first flow joint and the second flow joint, and at least one wall inside the first flow joint or the second flow joint to provide at least a third fluid flow path.

45. (currently amended) The method of claim 44 further comprising producing hydrocarbons through the first flow joint or the second flow joint.

46. (currently amended) The method of claim 44 further comprising injecting fluids into the well through ~~the~~ the first flow joint and the second flow joints.

47. (original) A method of manufacturing a wire-wrapped screen, the improvement comprising;

wrapping the wire at varying pitches wherein at least one section of the wire wrapped screen is permeable and at least one section of the wire-wrapped screen is impermeable.

48. (new) A wellbore apparatus comprising;

a first perforated basepipe configured to provide a first fluid flow path through a wellbore, wherein the first perforated basepipe has at least a first impermeable section and at least a first permeable section;

a second perforated basepipe configured to provide a second fluid flow path through the wellbore, wherein the second perforated basepipe has at least a second impermeable section and at least a second permeable section and the first permeable section and the second permeable

section are connected to provide a flow path between the first perforated basepipe and the second perforated basepipe; and

at least one baffle disposed inside the first perforated basepipe or the second perforated basepipe to provide at least one additional fluid flow path.

49. (new) The apparatus of claim 48 wherein the basepipes are concentric.

50. (new) The apparatus of claim 48 wherein the basepipes are eccentric.

51. (new) The apparatus of claim 48 wherein the basepipes are adjacent.

52. (new) The apparatus of claim 48 wherein the at least one baffle is coupled between the first perforated basepipe and the second perforated basepipe to form compartments within the first perforated basepipe.

53. (new) The apparatus of claim 48 wherein the at least one baffle comprises a first wall, a second wall and a third wall that are utilized to compartmentalized fluid flow paths within the first perforated basepipe or the second perforated basepipe.

54. (new) The apparatus of claim 48 wherein the at least one baffle comprises at least one wall to at least partially divide the fluid flow.

55. (new) The apparatus of claim 48 wherein the at least one baffle comprises a plurality of walls to create a plurality of compartments to redirect the fluid from the wellbore.

56. (new) The apparatus of claim 48 wherein the at least one baffle comprises a plurality of baffles disposed in axial locations within the first perforated basepipe or second perforated basepipe to redirect fluid into a plurality of compartments.

57. (new) The apparatus of claim 48 wherein the first perforated basepipe is a sand screen.

58. (new) The apparatus of claim 48 wherein the at least one baffle forms a predefined shape and the at least one baffle comprises at least one of permeable surfaces, impermeable surfaces, and combination thereof.

59. (new) A wellbore apparatus comprising:

a perforated basepipe configured to provide a first fluid flow path through a wellbore, wherein the perforated basepipe has at least an impermeable section and at a permeable section; and

a plurality of walls inside the perforated basepipe to provide at least a second fluid flow path through the wellbore.

60. (new) The apparatus of claim 59 wherein the perforated basepipe is a sand screen.

61. (new) The apparatus of claim 59 wherein the plurality of walls comprises a first wall, a second wall and a third wall, wherein each of the walls are coupled between the perforated basepipe and the first wall, second wall, third wall, or combination thereof.

62. (new) The apparatus of claim 59 comprising a redundant perforated basepipe configured to provide a third fluid flow path through the wellbore, the redundant perforated basepipe comprising at least a redundant impermeable section and at least a redundant permeable section, wherein the permeable section and the redundant permeable section are connected to provide another flow path between the perforated basepipe and the redundant perforated basepipe.

63. (new) The apparatus of claim 62 wherein the basepipes are concentric.

64. (new) The apparatus of claim 62 wherein the basepipes are eccentric.

65. (new) The apparatus of claim 62 wherein the basepipes are adjacent.

66. (new) The apparatus of claim 59 wherein at least one wall of the plurality of walls redirects the fluid into a plurality of compartments.

67. (new) The apparatus of claim 59 wherein the at least one wall forms a predefined shape in the perforated basepipe and comprises at least one of a permeable material, an impermeable material, and combination thereof.

68. (new) A wellbore apparatus comprising:

a) a first flow joint in a wellbore, the first flow joint comprising at least one three-dimensional surface defining a first fluid flow path through the wellbore, at least one section of the first flow joint surface being permeable and at least one section of the first flow joint surface being impermeable;

b) a second flow joint in the wellbore, the second flow joint comprising at least one three-dimensional surface defining a second fluid flow path through the wellbore, at least one section of the second flow joint surface being permeable and at least one section of the second flow joint surface being impermeable;

c) wherein the first flow joint is eccentric to the second flow joint in the wellbore and at least one permeable section of the first flow joint is connected to at least one permeable section of the second flow joint thereby providing at least one fluid flow path between the first flow joint and the second flow joint.

69. (new) The apparatus of claim 1 wherein the at least one wall forms a predefined shape and comprises at least one of a permeable portion, an impermeable portion, and combination thereof.

70. (new) The apparatus of claim 1 wherein the first flow joint and the second flow joint are different lengths within the wellbore.

71. (new) The apparatus of claim 1 wherein the first flow joint or second flow joint comprises a plurality of sections having a central opening through each of the plurality of sections.

72. (new) The apparatus of claim 1 wherein the first flow joint or second flow joint is impermeable on at least one end of the first flow joint or second flow joint.

73. (new) The apparatus of claim 20 wherein the at least one of first selectively perforated basepipe, the second selectively perforated basepipe, and combination is a sand screen.

74. (new) The apparatus of claim 20 wherein the at least one wall forms a specific shape in the first selectively perforated basepipe and comprises at least one of a permeable material, an impermeable material, and combination thereof.

75. (new) The apparatus of claim 20 wherein the first selectively perforated basepipe and the second selectively perforated basepipe are different lengths within the wellbore.

76. (new) The method of claim 36 wherein the at least one wall forms a predefined shape in the first flow joint or second flow joint and comprises at least one of a permeable section, an impermeable section, and combination thereof.

77. (new) The method of claim 36 wherein the first flow joint or second flow joint comprises a plurality of sections having a central opening through each of the plurality of sections.

78. (new) The method of claim 36 wherein the first flow joint or second flow joint is impermeable on at least one end of the first flow joint or second flow joint.

79. (new) The method of claim 44 wherein the at least one wall forms a shape within the first flow joint or second flow joint and comprises at least one of a permeable material, an impermeable material, and combination thereof.

80. (new) A wellbore apparatus comprising:

a) a first flow joint in a wellbore, the first flow joint comprising at least one three-dimensional surface defining a first fluid flow path through the wellbore, at least one section of the first flow joint surface being permeable and at least one section of the first flow joint surface being impermeable;

b) a second flow joint in the wellbore, the second flow joint comprising at least one three-dimensional surface defining a second fluid flow path through the wellbore, at least one section of the second flow joint surface being permeable and at least one section of the second flow joint surface being impermeable;

c) wherein the first flow joint is external to the second flow joint in the wellbore and at least one permeable section of the first flow joint is connected to at least one permeable section of the second flow joint thereby providing at least one fluid flow path between the first flow joint and the second flow joint.

81. (new) The apparatus of claim 80 wherein an annulus between the first flow joint and the second flow joint creates a third fluid flow path through the wellbore.